

Wilcox Refinery
Bristow, Creek County, OK
OK0001010917
SSID 06GG
Express Link "Wilcox Oil Company (West 221st Street South/Refinery Road)"
SDMS "R06: WILCOX OIL COMPANY (OK0 001 010 917)"

HISTORY:

Record: PRP Search conducted for Preliminary Assessment (PA)

12/12/1994 – SDMS 9011573 – 21 images

1. Abandoned oil refinery near Bristow, OK.
2. Appears to be owned and operated by Wilcox Oil Company from mid 1920's to early 1960's.
3. Original refinery site 13 acres.
4. Ownership map shows H. F. Wilcox Oil Company owned more land. Additional 20 acres west and east of St. Louis and San Francisco Railway plus approx 80 acres.
5. In 1963 Wilcox Oil Company transfers 110 acres to Wendel H. Sandlin.
6. Jack and Arthur White are the current owners.

Record: Preliminary Assessment (PA) of Wilcox Oil Company

12/15/1994 – SDMS# 9011570 - 561 images

1. PA conducted by ODEQ 12/15/1994.
2. Operations began in the 1920's until sold 11/1/1963.
3. Most equipment and tanks that remained on site in 1963 were auctioned and salvaged for scrap iron.
4. Size of site should be expanded to include approximately 75 acres north of San Cree and 40 acres of Section 29. (Total 115 acres)
 - a. USGS Quad "Bristow", Township 16 N / Range 9 E. Map datum 1927.
 - b. Site latitude 35° 50' 31.39" and longitude 96° 23' 02.25"
5. Tank farm and impoundments of the east 80 acres, most owned by Phil Elias.
6. Original refinery site currently owned by Jack and Arthur White.
7. Four tanks and abundant pipe pieces and scrap iron on White's property.
8. Groundwater

- a. Barnsdall Formation outcrops at the site, is a bedrock aquifer, not a principal resource.
 - b. Alluvial deposits from 0 to 100 feet in thickness, the Barnsdall Formation is 200 ft thick.
 - c. Depth to shallowest water bearing zone 25 ft. Depth to saturate sandstone in domestic well reported at 60 feet deep (less ¼ mile north of site).
 - d. Nearest domestic well onsite and reported 110 feet deep.
 - e. City of Bristow obtains its water supply from wells in the Barnsdall Formation and the Vamoosa-Ada aquifer.
9. Surface Water
- a. Topograph is relatively flat
 - b. Two tributaries of Sand Creek on site. Sand Creek is small perennial tributary of the Little Deep Fork Creek.
10. Soil Exposure
- a. Presence of soil contaminated assumed to be about 15.5 acres.
 - b. Contaminated soil assumed because of the barren areas and stressed vegetation.
 - c. Figure 2 (image 17) showing residences and areas of observed waste.
 - d. Three residences on site.
 - e. Eight people living on site and 11 within 200 feet.
11. Air Release
12. Odors observed during site visit. Site Inspection (SI) recommended.

**Record: Work Plan for Expanded Site Inspection (ESI) of Wilcox Oil Company
10/1/1996 – SDMS# 9382432 - 55 images**

- 1. ESI work plan prepared by Roy F Weston.
- 2. Site consists of many tracts of land and is owned by a number of private individuals, a church and Falcon Oil Properties (Reference 1).
- 3. Southern portion owned by four principals (1996 info):
 - a. Phil Elias (approx 80 acres southeaster portion)
 - b. Jack White
 - c. Arthur White (co-owner 13 acres south central)
 - d. First Assembly of God Church (Doug Sampley)(approx 8.75 acres).
- 4. Site boundaries expanded to include abandoned refinery properties to the north of the section line road.
- 5. The site covers approximately 300 acres and includes remnants of at least two inactive oil refineries. Figure 2-2 provides a Site Plan (image 19)
- 6. Refineries operated under various names including the following:

- a. Wilcox Oil Refining,
 - b. Lorraine Refinery,
 - c. Ohio Oil.
 - d. Continental Refining,
 - e. Producers Oil Co., and
 - f. Roland Refining.
7. Section 2.2 (Image 14) reports – the site is owned by private individuals, U.S. Cellular, The First Assembly of God Church, and Falcon Oil (Reference 6 – Creek County Tax Assessor, 1996, ownership map for the Wilcox Oil Site 22 August 1996) <Potential PRPs?>
8. Based on the site reconnaissance and aerial photographs, over 30 bermed areas formerly contained tanks and now potentially contain leaded tank bottoms. (Circular berms measure up to 200 feet in diameter, while the tank bottoms measure up to 150 feet in diameter. (Almost all of the aboveground tanks have been removed with the exception of 4)
9. Residences in the northern portion of the site appear to have been constructed directly over former locations of tanks and within tanks berms. Areas of barren black-colored soils were noted in the yards of homes located within these areas.
10. Former ponds/pits in the south central portion of the site. Pond 1 measures 250 ft by 100 ft, Pond 2 measures approximately 400 ft by 250 ft (Pond 1 recently backfilled). The suspected pit measures approximately 300 feet in diameter.
11. Portions of the site are located in the 100-year flood zone.

**Record: Expanded Site Inspection (ESI) of Wilcox Oil Company
3/1/1997 – SDMS# 90115 – 555 images**

1. ESI prepared by Roy F Weston.
2. Site approx 35 miles south west of Tulsa, OK.
3. Site reported owned by four (4) individuals:
 - a. Phil Elias. – Most of tank farm, approx 80 acres.
 - b. Jack White (father)
 - c. Arthur White (son).
 - d. Mr. and Mrs Lees. – property south central portion of the site, on the eastern edge of the White's property (and former refining facility). Reported living on-site in a mobile home with their daughter. They raise chicken and horses.
 - e. Jack White's other son and daughter-in-law, Roy and Elvira, live on the site in one of the former refinery buildings.
4. Section 2.1.3, the site now reported as 98 acres.

5. Nearby land use:
 - a. Bordered to the east and southeast by undeveloped land and scattered farms.
 - b. Bordered immediately to the southwest by the City of Bristow.
 - c. Bordered immediately to the north by undeveloped land with scattered residences and commercial properties.
 - d. Bordered to the west by the St. Louis and San Francisco Railroad. West of the railroad tracks are the First Assembly of God Church and the associated pastor's residence.
6. Alternatives sources that may be contributing a release of similar substances include former refineries located west and north of the site. Little is known about the date of operation of these refineries. This includes Continental Refining Company, Indianahoma Refining Company, Lorraine Refining Company, Roland Refining Company, Producers Oil Co., Oil Refinery. These refineries are reportedly being investigated as separate sites by ODEQ.
7. Site concerns:
 - a. Presence of hazardous substances.
 - b. Release to groundwater is of major concern.
 - c. Release to surface water is of major concern.
 - d. Release from soil exposure to near residences.
 - e. Release to air is of some concern because of potential soil contamination.
8. ESI sampling for TCL VOCs, TCL BNAs, TCL pesticides/PCBs, and TAL metals and cyanide. Waste samples also included total petroleum hydrocarbons (TPH).
9. Data Validation performed by EPA ESAT in Houston, evaluated for Data Usability by Weston.
10. Three (2) PPEs (Potential Point Entry).
11. Hydrogeologic description (image 42):
 - a. Located on an outcrop of the Barnsdall Formation. Contains sandstone interbedded with silty and sandy shales.
 - b. Capable producing water, is a bedrock aquifer. Not considered principal resource.
 - c. Barnsdall is unconfined, shallow water table and 200 ft thick.
 - d. Used primarily by private wells as a source of drinking water.
 - e. Other aquifers are the Vamoosa-Ada aquifer west of the site. Used by nearby public supply wells. Site is located within a potential recharge area of the Vamoosa-Ada.
 - f. However, the Tallant formation may act as a confining unit between the uppermost Barnsdall and the overlying (over or on top) Vamoosa-Ada aquifer west of the site.

- g. Depth to shallowest water-bearing unit is reportedly less than 25 ft.
 - h. Depth of 60 ft reported to first water-saturated sandstone in a domestic well locates less than ¼ mile north of the site.
 - i. Depth of contamination, reported ½ foot below ground surface.
 - j. Nearest well 230 ft deep, tapping lower Barnsdall and located ¼ mile north.
 - k. Nearest active public well 1 mile southwest and tapping Vamoosa-Ada aquifer.
 - l. There are 8 active drinking water wells for Bristow within 4 miles.
 - m. No gw sampling conducted during EPA ESI by Weston.
12. Surface water:
- a. Site drainage flows into Sand Creek, and downstream to the Little Deep Fork Creek.
 - b. Shortest distance from a source to PPE is 400 feet.
 - c. Portions of the site within 100-year flood zone.
 - d. Sources have no containment features for floods.
 - e. COCs of concern in the ESI a release of copper to Sand Creek.
13. Soil exposure (Section 7 – image 57):
14. “Oil-waste Land” has been mapped in areas throughout the site, occurring in tank farm and refinery equipment areas. The areas mapped have been practically ruined for agricultural use by oil and salt-water waste from oil wells. They range in size from one acre to several acres.
15. Photographs starting at image 77.

Record: Site Assessment Report for Wilcox Refinery by E&E

3/1/1999 – SDMS# 937188 – 523 images

- 1. Site reported 98 acres.
- 2. At later date Wilcox expanded operations acquiring the former Lorraine facility and the tank farm area. The company sold approx 110 acres to Wendel Sandlin on 11/1/1963.
- 3. Summary of site owners and transfers in Table 2-1. (image 15).
- 4. Using a Geoprobe hydraulic push sampler to explore subsurface lithology, and determine the presence of site related contaminants. Samples from 2-inch diameter soil cores were obtained to a maximum depth of 20 feet within potential source areas. Samples logged by the field geologist, screened for the present of VOA vapors using the HNu photoionization detector (PID), and transferred by hand from the acetate collection sleeves to the appropriate sample jars.
- 5. Using hand driven, slam-bar borings were advanced to obtain shallow subsurface soil sample and/or perched ground water samples.

6. Soil samples submitted to the laboratory were analyzed for BTEX compounds using EPA Method 8015B Mod. (or 8021B Mod – need to check), for PAHs using EPA Method 8310, for TPH using TNRCC Method 1005, for metals using EPA Method 6010B, and for soil pH using EPA Method 9045C (Table 3-2).
7. Geographic coordinates of all soil boring location determined using hand-held Global Positioning System (GPS) instrument with an accuracy estimated at +/- 50 feet or +/- 20 feet circular error.
8. Table 4-5 Source Inventory and preliminary estimates of waste quantity.
9. COCs:
 - a. ESI oily waste: phenanthrene, pyrene, TPH, antimony, beryllium, and lead.
 - b. ESI surface soil: lead.
 - c. Subsurface soil: benzene, ethylbenzene, toluene, xylene, anthracene, benzo(a)-anthracene, benzo(b) pyrene, chrysene, fluoranthene, fluorine, phenanthrene, pyrene, gasoline, TPH, antimony, arsenic, beryllium, cadmium, chromium, lead, mercury, and nickel.
 - d. Groundwater: benzene and toluene, in addition TPH presents and objectionable taste and odor making shallow ground water at the site unfit for use.
10. *ROC by E&E 3/18/1998 – Mr. Elias is the owner of the 80-acre former tank farm area comprising most of the Wilcox Refinery site. Mr. Elias is in the process of selling the property and has conducted some remediation at the site including bulldozing soil over oily waste at the surface within tank berms. At pond 1, and on the oily waste "Pit". The heavy equipment and operators were apparently provided by Tenneco Oil Company.*

**Record: Expanded Site Inspection Report Wilcox Refinery by ODEQ
9/30/2011 – SDMS# 643609 – 432 images**

1. A PA conducted by ODEQ in September 2008 (Reference #10).
2. A SI conducted by ODEQ in August 2009 (Reference #11).
3. A ESI at former Lorraine/Wilcox by ODEQ in September 2010 (Reference #12).
4. Site covers approximately 125 acres (Section 2.1, image 4).
5. Three major operational areas: (Section 2.2)(Ref 5, Figure 7)
 - a. Processing and storage area #1 (Wilcox)
 - i. East of the railroad tract.
 - b. Processing and storage area #2 (Lorraine)
 - i. Southwest part of the site, south Refinery Road, west of the railroad tract.
 - c. Product storage areas (divided by an active railroad track)

- i. Northwestern portion of the site, west of the railroad and north of West 221st Street South/Refinery Road.
6. Property used in oil refinery operations from 1915 until November 1963.
7. Associated wastes with this type of facility include: (Section 2.4)
8. Crude Oil, tank residues, brine, acid and caustic sludges, heavy metals, petroleum products, coke, sulfur compounds, and solvents.
9. **Reference 12 is the Lorraine Refinery ESI, OKN 000606909 conducted 9/29/2010 by ODEQ, EPA SSID No 610679.**
 - a. **Site location reported as the former Lorraine/Wilcox Refinery with 125 acres.**
10. Summary and conclusions (Section 8, image 15)
 - a. Site areas contaminated with metals and organic compounds.
 - b. Area of soil contamination estimated at 62 acres.
 - c. Metals in three (3) wells on site and three (3) wells adjacent to the site.
 - d. A church and six (6) residents on site.
 - e. Visible waste present where product and tanks once stood.
11. Table 2, two (2) surface soil samples with high lead (43,600 ppm and 5,000 ppm).

Record: El Paso on behalf of EPA Oil Company liquidating trust reasons for not participating in the investigation and remediation of Wilcox Oil Company.

2/3/2012 – SDMS# 651569 – 2 images

1. Discuss Tenneco Oil Company was a successor-by-merger to Wilcox Oil Company.
2. Tenneco Oil Company was renamed as EPEC Oil Company in the mid- 1990s.
3. As part of the dissolution process EPEC Oil Company created the EPEC Oil Company Liquidating Trust on March 9, 2001. Authorized to resolve claims asserted on or before December 18, 2008, referred to as the "Claims Assertion Date".
4. Claim do not have the authority to participate because no claims were made prior the the "Claims Assertion Date".

Record: 104E Request for information for Kinder Morgan

10/25/2012 – SDMS# 670729 – 8 images

1. Explain the corporate relationship between Wilcox Oil Company, Tenneco Oil Company, EPEC Oil Company, El Paso Corporation and Kinder Morgan.

Record: 104E Request for information for Conoco Phillips

4/23/2013 – SDMS# 682548 – 9 images

1. Explain the corporate relationship between ConocoPhillips and Continental Refining Company and Continental Oil.
2. Explain the relationship between Continental Oil and the following entities: Brostow Oil and Refinery, Lorraine Refining, Interocean Oil Company, Producers Oil Company, Bolin Oil and Wilcox Oil Company.

**Record: 104E Request for information for Chevron Environmental Management Comapany
5/01/2013 – SDMS# 682955 – 8 images**

1. Identify relationship, if any between Chevron, Texas Company, and Producers Oil.
2. Relationship between Producers Oil and the following entities: Bristow Oil and Refinery, Lorraine Refining, Interocean Oil Company, Continental Oil Company, Bolin Oil, Wilcox Oil Company and Texaco.